



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,910	02/28/2002	Ching Yao Huang	Huang 14-1-2-1	1674
46290	7590	02/08/2006	EXAMINER	
WILLIAMS, MORGAN & AMERSON 10333 RICHMOND, SUITE 1100 HOUSTON, TX 77042			CHO, UN C	
			ART UNIT	PAPER NUMBER
			2687	

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,910

Applicant(s)

HUANG ET AL.

Examiner

Un C. Cho

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on 11/18/2005, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 11 and 29 recites the limitation "the MSC" in line 5 of the claim.

There is insufficient antecedent basis for this limitation in the claim. *It is not clear whether this is the "home" or "serving" msc.*

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1 – 10 and 13 – 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Streter (US 6,456,858 B1).

Regarding claim 1, Streter discloses an apparatus for wirelessly paging a mobile device using a network operating according to multiple wireless technologies based at least in part on a technological capability of the mobile device (MTSO (Fig. 1, 18) wirelessly sending a control command, in a paging channel, through one of the base stations (Fig. 1, 22 or 24,) to a dual-mode (CDMA/AMPS) wireless telephone using CDMA protocol; Streter, Col. 6, lines 50 – 54 and Col. 9, line 52 through Col. 10, line 21), the apparatus comprising: processing circuitry configured to access information associated with the

technological capability of the mobile device to determine whether the wireless technology of the mobile unit corresponds to at least one of the multiple wireless technologies of the network and to generate a paging request for the mobile device that is based at least partially on the technological capability of the mobile device when the wireless technology of the mobile unit corresponds to at least one of the multiple wireless technologies of the network (control processor (Fig. 1, 52) within MTSO knows what type of system the wireless telephone is registered such as digital wireless communication system (Fig. 1, 32), therefore, the control processor generates a control command for the wireless telephone based on the digital wireless communication system's protocol; Streter, Col. 7, lines 38 – 43, line 57 through Col. 8, line 9, Col. 3, lines 12 – 20, and Col. 9, line 52 through Col. 10, line 21).

Regarding claim 2, Streter discloses wherein the paging request is based at least partially on an identifier associated with the mobile device to be paged (Streter, Col. 7, lines 19 – 43).

Regarding claim 3, Streter discloses wherein the apparatus is in communication with a wireless network that comprises at least one cell (MTSO (Fig. 1, 18) is connected to multiple base stations (Fig. 1, 16, 22 and 24) whereas each base station represents at least one cell site), said at least one cell being configured to receive the paging request generated by the processing circuitry and to wireless broadcast the paging request via an antenna of the network to enable said at least one cell to wirelessly communicate with the mobile device

being paged (control processor (Fig. 1, 52) instructs the cell site processor (Fig. 2, 60) within the base station (Fig. 2, 22) to generate and transmit the control command to a selected dual-mode wireless telephones; Streter, Col. 10, lines 22 – 46 and Col. 11, line 58 through Col. 12, line 3).

Regarding claim 4, Streter discloses wherein said technological capability includes a wireless protocol technology that said at least one cell utilizes to wirelessly broadcast paging requests to mobile device that have the technological capability to wirelessly communicate using said wireless protocol technology (at least one cell site (digital base station, Fig. 1, 22) utilizes digital wireless system such as CDMA protocol to wirelessly send a control command to a dual-mode wireless telephone operating in a CDMA protocol; Streter, Col. 5, lines 30 – 39 and Col. 11, line 65 through Col. 12, line 3).

Regarding claim 5, Streter discloses wherein said technological capability corresponds to a band class over which said at least one cell is configured to wirelessly broadcast paging requests and over which the mobile device being paged is configured to wirelessly communicate (Streter, Col. 9, lines 24 – 43).

Regarding claim 6, Streter discloses wherein said technological capability corresponds to one or more specific channels over which the mobile device being paged is capable of communicating and over which said at least one cell is capable of communication with mobile device (Streter, Col. 9, lines 24 – 56).

Regarding claim 7, Streter discloses wherein the processing circuitry (control processor, Fig. 1, 52) is comprised at a MSC (MTSO, Fig. 1, 18) of the

wireless network, and wherein the technological capability of the mobile device is stored at the MSC of the wireless network, the MSC being the home MSC of the mobile device (MTSO having an HLR which includes subscriber profile information for each of the registered subscribers of the dual-mode wireless telephones; Streter, Col. 7, lines 24 – 33).

Regarding claim 8, Streter discloses wherein the technological capability of the mobile device is stored in a HLR of the home MSC (Streter, Col. 7, lines 24 – 33).

Regarding claim 9, Streter discloses wherein the technological capability of the mobile device is stored in a VLR of the MSC (Streter, Col. 7, lines 24 – 33 and lines 54 – 56).

Regarding claim 10, Streter discloses wherein when the mobile device is to be paged, the MSC generates a paging request that is broadcast only to mobile devices that have the same technological capability of the mobile device being paged (control processor within MTSO generates and outputs a control command only to a group of dual-mode wireless telephones; Streter, Col. 7, lines 57 – 65 and Col. 11, line 65 through Col. 12, line 3).

Regarding claims 13 and 21, the claims are interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 14, Streter discloses wherein said multiple wireless technologies of the network correspond to multiple band classes (AMPS system working within the 800MHz cellular band; Streter, Col. 1, lines 22 – 26 and

CDMA PCS system is currently assigned at 1930 – 1990MHz band for the forward CDMA channel and 1850 – 1910MHz for the reverse CDMA channel; Streter, Col. 9, lines 38 – 43) over which said MSC and said at least one cell are configured to wireless broadcast paging requests and over at least one of which the particular mobile device being paged is configured to wirelessly communicate (at least one cell site (digital base station, Fig. 1, 22) utilizes digital wireless system such as CDMA protocol to wirelessly send a control command to a dual-mode wireless telephone operating in a CDMA protocol; Streter, Col. 5, lines 30 – 39 and Col. 11, line 65 through Col. 12, line 3).

Regarding claim 15, Streter discloses wherein said multiple wireless technologies correspond to multiple specific channels over which the network can issue pages and over at least one of which the particular mobile device being paged is capable of communicating (Streter, Col. 9, lines 24 – 56).

Regarding claims 16 and 26, the claims are interpreted and rejected for the same reason as set forth in claim 8.

Regarding claims 17 and 27, the claims are interpreted and rejected for the same reason as set forth in claim 9.

Regarding claim 18, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 19, the claim is interpreted and rejected for the same reason as set forth in claim 2.

Regarding claim 20, the claim is interpreted and rejected for the same reason as set forth in claim 3.

Regarding claim 22, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 23, the claim is interpreted and rejected for the same reason as set forth in claim 6.

Regarding claims 24 and 25, the claims are interpreted and rejected for the same reason as set forth in claim 7.

Regarding claim 28, the claim is interpreted and rejected for the same reason as set forth in claim 10.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 11, 12 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Streter in view of Corriveau et al. (US 5,918,177).

Regarding claim 11, Streter as applied above discloses that the home MSC generates a control command for the dual-mode wireless telephone based at least partially on the information obtained from the home MSC relating to the technological capability of the mobile device (control processor (Fig. 1, 52)

instructs the cell site processor (Fig. 2, 60) within the base station (Fig. 2, 22) to generate and transmit the control command to a selected dual-mode wireless telephones; Streter, Col. 10, lines 22 – 46 and Col. 11, line 58 through Col. 12, line 3).

However, Streter as applied above does not specifically disclose wherein the MSC is a serving MSC of the mobile device, and wherein the serving MSC determines when the mobile device has registered with the network comprising the serving MSC, and wherein the serving MSC obtains information relating to the technological capability of the mobile device from the home MSC of the mobile device, and wherein the serving MSC uses the information obtained by the home MSC when generating a page request for the mobile device that is based at least partially on the information obtained from the home MSC relating to the technological capability of the mobile device. In an analogous art, Corriveau discloses wherein the MSC-2 (serving MSC) receives a page from MS and identifies the page response as an unknown page response then MSC-2 sends a message to MSC-1 (home MSC) providing in the unsolicited response invoke message an expected service code parameter along with MSC-2's identification number, after MSC-1 compares the received information from MSC-2 and if there is a match MSC-1 grants access to MS by sending an unsolicited response return result message back to MSC-2 so that MSC-2 can grant the service to MS (Corriveau, Col. 4, lines 3 – 25 and lines 45 – 52). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to provide the technique of Corriveau to the system of Streter in order to provide an efficient way of expanding the service type of the MS throughout an extensive region rather than being limited to its home MSC and also to ensure that the user of the MS receives its services based on its capabilities.

Regarding claim 12, Streter discloses wherein the paging request that is broadcast to mobile devices having the same technological capability of the mobile device being paged is first broadcast in a last zone in which the mobile device being paged registered with the network (Streter discloses that MTSO (Fig. 1, 18) wirelessly sends a control command, in a paging channel, through one of the base stations (Fig. 1, 22 or 24,) to a group of dual-mode (CDMA/AMPS) wireless telephones using CDMA protocol; Streter, Col. 6, lines 50 – 54 and Col. 9, line 52 through Col. 10, line 21) and wherein the home MSC accesses this registration information and includes the registration information in the page request when the page request is generated (Corriveau, Col. 5, lines 22 – 51).

Regarding claim 29, the claim is interpreted and rejected for the same reason as set forth in claim 11.

Art Unit: 2687


Conclusion

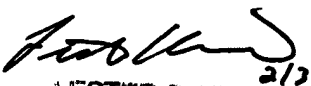
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Un C. Cho whose telephone number is (571) 272-7919. The examiner can normally be reached on M ~ F 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Un C Cho
Examiner
Art Unit 2687

2/2/06



2/2/06
LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER